

Appl. No. 10/714,986
Response to Office Action
Dated May 22, 2006

REMARKS/ARGUMENTS

Applicants acknowledge receipt of the Office Action dated May 22, 2006. Claims 1-21 are pending in the application. By this response, claims 4 and 5 are amended. Claims 4-5 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 1-21 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 5-20 of copending Application No. 10/626,983. In addition, claims 1-21 are rejected under 35 U.S.C. § 112, first paragraph, as not enabled. Claims 1-7, 10-15, 17, and 21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Clatty et al., U.S. Patent No. 5,374,486 ("Clatty"). Moreover, claims 1-7, 10-15, 17, and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Clatty*. Claims 1, 3-6, 10-14, and 21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Patterson, U.S. Patent No. 5,112,282 ("Patterson"). In addition, claims 1, 3-6, 10-14, and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Patterson*. Claims 1-6, 10-15, 17-18, and 21 are rejected under 35 U.S.C. § 102(b) as being anticipated by Alberino et al., U.S. Patent No. 4,810,444 ("Alberino"). Moreover, claims 1-15 and 17-21 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over *Alberino*. The Examiner has indicated that claim 16 would be allowable if rewritten to overcome the § 112, first and second paragraphs, rejections and include all limitations of the base and intervening claims. Applicants believe all pending claims are allowable over the art of record and respectfully request reconsideration and allowance of all claims.

I. Claims 4 and 5 are not indefinite.

The Examiner has rejected claims 4 and 5 under § 112, second paragraph, as being indefinite. The Examiner notes that "[i]t is unclear what index is being claimed in claims 4-5." (Office Action, pg. 2, ln. 4) By this Response, Applicants have amended claims 4 and 5 to recite "an isocyanate Index." Therefore, Applicants respectfully submit that claims 4 and 5 are not indefinite.

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II. A terminal disclaimer is filed with this Response.

The Examiner has provisionally rejected claims 1-21 on the ground of nonstatutory obviousness-type double patenting over claims 5-20 of copending Application No. 10/626983. Applicants submit herewith a terminal disclaimer in compliance with 37 C.F.R. 1.321. Therefore, Applicants respectfully request that the Examiner withdraw the double patenting rejections of claims 1-21.

III. Claims 1-21 are sufficiently enabled.

The Examiner has rejected claims 1-21 under § 112, first paragraph, as not enabled. Applicants respectfully submit that claims 1-21 are properly enabled.

Claims 1 and 12 are independent claims upon which claims 2-11 and 13-21, respectively. Claim 1 recites a "liquid reaction mixture" that "gels between 340 and 768 seconds at 25°C and between 95 and 210 seconds at 140°C." Claim 12 recites a "liquid reaction mixture" that has "a gel time in the range of 84 to 600 seconds when maintained at 23°C." The Examiner indicates that "[i]t would require undue experimentation to determine all of the reaction systems which fall within the scope of the instant claims and particularly those which meet the instantly claimed gel time parameters from the disclosure of the instant specification other than those specifically disclosed by the instant specification" (Office Action, pg. 4, Ins. 3-6) The Examiner further supposes that the claims require a "vast amount of experimentation . . . apparently infinite which is itself undue in that it is impossible to perform." (Office Action, pg. 4, Ins. 14-15)

Applicants would like to point out that "[a]n extended period of experimentation may not be undue if the skilled artisan is given sufficient direction or guidance." (MPEP § 2164.06, emphasis added) Applicants would further like to point out that "[t]he test is not merely quantitative, since a considerable amount of experimentation is permissible . . . if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed." (MPEP § 2164.06, emphasis added)

The specification provides sufficient guidance to claims 1 and 12 by teaching numerous reaction systems in the present specification. For instance, the Applicants teach sufficient components for the liquid reaction mixture and the ratios of such. (Published Application, paras. [0012], [0078]-[0080] and [0088]) In addition, the Examples also provide teachings of reaction

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systems having gel times that properly enable claims 1 and 12. Applicants note that the Examiner has indicated that the specification provides teachings of reaction systems that are encompassed by the claims. (Office Action, pg. 4, lns. 17-18) In relation to such indication by the Examiner, Applicants respectfully point out that "the teachings of the specification must not be ignored because claims are to be given their broadest reasonable interpretation that is consistent with the specification." (MPEP § 2164.08, para. 7, emphasis added) The guidance taught by the specification sufficiently provides any direction needed to enable the claims. Moreover, Applicants respectfully submit that there is no "infinite" amount of experimentation as indicated by the Examiner but instead that sufficient guidance is provided by the teachings in the specification and embodiments shown in the Examples.

Therefore, Applicants respectfully submit that independent claims 1 and 12 are enabled. Moreover, Applicants respectfully submit that dependent claims 2-11 and 13-21 are enabled as such claims include all recitations of the independent claims to which they depend. Consequently, Applicants respectfully submit that claims 1-21 are enabled and are allowable.

IV. Claims 1-7, 10-15, 17, and 21 are not anticipated by *Clatty*.

Applicants respectfully traverse the Examiner's rejections of claims 1-7, 10-15, 17, and 21 under 35 U.S.C. § 102 as being anticipated by *Clatty*. Applicants submit that the claims are not anticipated by *Clatty* because *Clatty* fails to disclose each and every limitation of these claims.

Claim 1 is an independent claim upon which claims 2-7, 10, and 11 depend. Claim 12 is an independent claim upon which claims 13-15, 17, and 21 depend. Claim 1 recites that the liquid reaction mixture "gels between 340 and 768 seconds at 25°C and between 95 and 210 seconds at 140°C." Claim 12 recites that the liquid reaction mixture "has a gel time in the range of 84 to 600 seconds when maintained at 23°C." In addition, claims 1 and 12 recite "a continuous fiber reinforcing material." Nothing in *Clatty* discloses the recited gel times of claims 1 and 12. For instance, the Examiner notes that "[t]he patentee is silent regarding the instantly claimed gel rates." (Office Action, pg. 5, ln. 26-pg. 6, ln. 1) Applicants respectfully submit that *Clatty* does not "inherently possess the instantly claimed gel times" as set forth by the Examiner. (Office Action, pg. 6, lns. 1-5) For instance, there is no evidence that liquid

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reaction mixtures of *Clatty* would have the recited gel times of claims 1 and 12. *Clatty* discloses a broad laundry list of polyols and isocyanate reactive compounds. Nowhere in *Clatty* is there any disclosure that a particular combination of such polyols and isocyanate reactive compounds would "necessarily" disclose the recited gel times of claims 1 and 12. Inherency is required to be a necessary conclusion of the art and not a mere possible conclusion as in this instance with the disclosure of *Clatty*. Therefore, Applicants respectfully submit that the disclosure of *Clatty* does not disclose the recited gel times.

Moreover, nothing in *Clatty* discloses a continuous fiber reinforcing material. Instead, *Clatty* merely discloses "fillers and/or reinforcing substances," none of which are disclosed as continuous fiber reinforcing material. (*Clatty*, col. 11, lns. 40-45)

In view of the recitations in claims 1 and 12 that are not disclosed by *Clatty*, the Applicants respectfully request that the Examiner withdraw the § 102 rejections and allow claims 1 and 12. Applicants further request that the Examiner also withdraw the § 102 rejections of dependent claims 2-7, 10-11, 13-15, 17, and 21, since it is submitted that independent claims 1 and 12 are allowable. Dependent claims 2-7, 10-11, 13-15, 17, and 21 must *a fortiori* also be allowable, since they carry with them all the limitations of the independent claims to which they ultimately refer.

V. Claims 1-7, 10-15, 17, and 21 are patentable over *Clatty*.

Applicants respectfully traverse the Examiner's rejections of claims 1-7, 10-15, 17, and 21 under § 103 as being unpatentable over *Clatty*. Applicants submit that, contrary to MPEP section 2143, the Examiner has failed to make a *prima facie* case of obviousness in rejecting such claims in that the Examiner has failed to cite references that teach or suggest all of the elements in the rejected claims.

Claim 1 is an independent claim upon which claims 2-7, 10, and 11 depend. Claim 12 is an independent claim upon which claims 13-15, 17, and 21 depend. Claim 1 recites that the liquid reaction mixture "gels between 340 and 768 seconds at 25°C and between 95 and 210 seconds at 140°C." Claim 12 recites that the liquid reaction mixture "has a gel time in the range of 84 to 600 seconds when maintained at 23°C." In addition, claims 1 and 12 recite "a continuous fiber reinforcing material." As noted above, nothing in *Clatty* teaches or suggests the

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recited gel times of claims 1 and 12. As further noted above, nothing in *Clatty* teaches or suggests a continuous fiber reinforcing material.

Accordingly, Applicants respectfully request that the Examiner withdraw the § 103 rejections and allow claims 1 and 12. Since independent claims 1 and 12 are submitted to be allowable, dependent claims 2-7, 10, 11, 13-15, 17, and 21 must *a fortiori* also be allowable as they carry with them all the limitations of claims 1 and 12.

VI. Claims 1, 3-6, 10-14, and 21 are not anticipated by Patterson.

Applicants respectfully traverse the Examiner's rejections of claims 1, 3-6, 10-14, and 21 under 35 U.S.C. § 102 as being anticipated by *Patterson*. Applicants submit that the claims are not anticipated by *Patterson* because *Patterson* fails to disclose each and every limitation of these claims.

Claim 1 is an independent claim upon which claims 3-6, 10, and 11 depend. Claim 12 is an independent claim upon which claims 13, 14, and 21 depend. Claims 1 and 12 recite that the reaction system comprises "a continuous fiber reinforcing material." In addition, claim 1 recites that the liquid reaction mixture "gels between 340 and 768 seconds at 25°C and between 95 and 210 seconds at 140°C." Claim 12 further recites that the liquid reaction mixture "has a gel time in the range of 84 to 600 seconds when maintained at 23°C." Nothing in *Patterson* discloses the reaction system comprising a continuous fiber reinforcing material. *Patterson* does disclose a reinforcing fabric 24. (*Patterson*, col. 4, ln. 52- col. 5, ln. 2) However, such reinforcing fabric 24 is merely an outer portion of a power transmission belt 10. (*Patterson*, col. 4, ln. 52- col. 5, ln. 2; Fig. 1) For instance, *Patterson* teaches that the reinforcing fabric 24 "fits along the alternating teeth 16 and alternating land portions 18 of the belt 10 to form a face cover therefor." (*Patterson*, col. 4, lns. 52- 54) Therefore, *Patterson* does not disclose a reaction system comprising a continuous fiber reinforcing material.

Moreover, nothing in *Patterson* discloses the recited gel times of claims 1 and 12. For instance, the Examiner notes that "[t]he patentee is silent regarding the instantly claimed gel rates." (Office Action, pg. 8, ln. 6) Applicants respectfully submit that *Patterson* does not "inherently possess the instantly claimed gel times" as set forth by the Examiner. (Office Action, pg. 8, lns. 6-11) For instance, there is no evidence that liquid reaction mixtures of

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Patterson would have the recited gel times of claims 1 and 12. *Patterson* broadly discloses that the "gel time of the material in the mold will vary depending on the constituent components thereof." (*Patterson*, col. 9, lns. 28-29) *Patterson* further broadly discloses that "[t]he gel time will generally be between 0-15 minutes." (*Patterson*, col. 9, ln. 30) Nowhere does *Patterson* provide teachings that would "necessarily" disclose the recited gel times of a liquid reaction mixture as recited in claims 1 and 12. As noted above, inherency is required to be a necessary conclusion of the art and not a mere possible conclusion as in this instance with the disclosure of *Patterson*. Therefore, Applicants respectfully submit that the disclosure of *Patterson* does not disclose the recited gel times.

In view of the recitations in claims 1 and 12 that are not disclosed by *Patterson*, the Applicants respectfully request that the Examiner withdraw the § 102 rejections and allow claims 1 and 12. Applicants further request that the Examiner also withdraw the § 102 rejections of dependent claims 3-6, 10, 11, 13, 14, and 21, since it is submitted that independent claims 1 and 12 are allowable. Dependent claims 3-6, 10, 11, 13, 14, and 21 must *a fortiori* also be allowable, since they carry with them all the limitations of the independent claims to which they ultimately refer.

VII. Claims 1, 3-6, 10-14, and 21 are patentable over Patterson.

Applicants respectfully traverse the Examiner's rejections of claims 1, 3-6, 10-14, and 21 under § 103 as being unpatentable over *Patterson*. Applicants submit that, contrary to MPEP section 2143, the Examiner has failed to make a *prima facie* case of obviousness in rejecting such claims in that the Examiner has failed to cite references that teach or suggest all of the elements in the rejected claims.

Claim 1 is an independent claim upon which claims 3-6, 10, and 11 depend. Claim 12 is an independent claim upon which claims 13, 14, and 21 depend. Claims 1 and 12 recite that the reaction system comprises "a continuous fiber reinforcing material." In addition, claim 1 recites that the liquid reaction mixture "gels between 340 and 768 seconds at 25°C and between 95 and 210 seconds at 140°C." Claim 12 further recites that the liquid reaction mixture "has a gel time in the range of 84 to 600 seconds when maintained at 23°C." As noted above, nothing in *Patterson* teaches or suggests the reaction system comprising a continuous fiber reinforcing

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material. Instead, *Patterson* teaches or suggests a reinforcing fabric 24 that is merely an outer portion of a power transmission belt 10. (*Patterson*, col. 4, ln. 52- col. 5, ln. 2; Fig. 1) Moreover, nothing in *Patterson* teaches or suggests the recited gel times of claims 1 and 12.

Accordingly, Applicants respectfully request that the Examiner withdraw the § 103 rejections and allow claims 1 and 12. Since independent claims 1 and 12 are submitted to be allowable, dependent claims 3-6, 10, 11, 13, 14, and 21 must *a fortiori* also be allowable as they carry with them all the limitations of claims 1 and 12.

VIII. Claims 1-6, 10-15, 17-18, and 21 are not anticipated by *Alberino*.

Applicants respectfully traverse the Examiner's rejections of claims 1-6, 10-15, 17-18, and 21 under 35 U.S.C. § 102 as being anticipated by *Alberino*. Applicants submit that the claims are not anticipated by *Alberino* because *Alberino* fails to disclose each and every limitation of these claims.

Claim 1 is an independent claim upon which claims 2-6, 10, and 11 depend. Claim 12 is an independent claim upon which claims 13-15, 17-18, and 21 depend. Claim 1 recites that the liquid reaction mixture "gels between 340 and 768 seconds at 25°C and between 95 and 210 seconds at 140°C." Claim 12 recites that the liquid reaction mixture "has a gel time in the range of 84 to 600 seconds when maintained at 23°C." Nothing in *Alberino* discloses the recited gel times of claims 1 and 12. For instance, the Examiner notes that "[t]he patentee is silent regarding the instantly claimed gel rates." (Office Action, pg. 10, ln. 13) Applicants respectfully submit that *Alberino* does not "inherently possess the instantly claimed gel times" as set forth by the Examiner. (Office Action, pg. 10, ln. 15) For instance, there is no evidence that liquid reaction mixtures of *Alberino* would have the recited gel times of claims 1 and 12. *Alberino* discloses a broad laundry list of polyols and polyisocyanates. (*Alberino*, col. 7, ln. 36-col. 9, ln. 4) Nowhere in *Alberino* is there any disclosure that a particular combination of such polyols and polyisocyanates would "necessarily" disclose the recited gel times of claims 1 and 12. In regards to gel time, *Alberino* merely discloses that "as the mold temperature is increased, the time to gelation is decreased." (*Alberino*, col. 10, lns. 6-7) As noted above, inherency is required to be a necessary conclusion of the art and not a mere possible conclusion as in this instance with the necessary conclusion of the art and not a mere possible conclusion as in this instance with the

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disclosure of *Alberino*. Therefore, Applicants respectfully submit that the disclosure of *Alberino* does not disclose the recited gel times.

In view of the recitations in claims 1 and 12 that are not disclosed by *Alberino*, the Applicants respectfully request that the Examiner withdraw the § 102 rejections and allow claims 1 and 12. Applicants further request that the Examiner also withdraw the § 102 rejections of dependent claims 2-6, 10, 11, 13-15, 17-18, and 21, since it is submitted that independent claims 1 and 12 are allowable. Dependent claims 2-6, 10, 11, 13-15, 17-18, and 21 must *a fortiori* also be allowable, since they carry with them all the limitations of the independent claims to which they ultimately refer.

IX. Claims 1-15 and 17-21 are patentable over *Alberino*.

Applicants respectfully traverse the Examiner's rejections of claims 1-15 and 17-21 under § 103 as being unpatentable over *Alberino*. Applicants submit that, contrary to MPEP section 2143, the Examiner has failed to make a *prima facie* case of obviousness in rejecting such claims in that the Examiner has failed to cite references that teach or suggest all of the elements in the rejected claims.

Claim 1 is an independent claim upon which claims 2-11 depend. Claim 12 is an independent claim upon which claims 13-15 and 17-21 depend. Claim 1 recites that the liquid reaction mixture "gels between 340 and 768 seconds at 25°C and between 95 and 210 seconds at 140°C." Claim 12 recites that the liquid reaction mixture "has a gel time in the range of 84 to 600 seconds when maintained at 23°C." As noted above, nothing in *Alberino* teaches or suggests the recited gel times of claims 1 and 12.

Accordingly, Applicants respectfully request that the Examiner withdraw the § 103 rejections and allow claims 1 and 12. Since independent claims 1 and 12 are submitted to be allowable, dependent claims 2-11, 13-15, and 17-21 must *a fortiori* also be allowable as they carry with them all the limitations of claims 1 and 12.

X. Conclusion

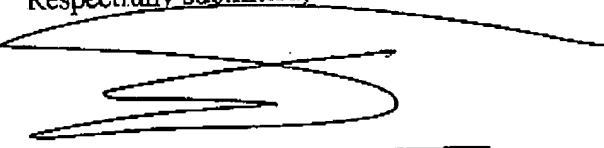
Applicants respectfully request reconsideration, allowance of the pending claims and a timely Notice of Allowance be issued in this case. If the Examiner feels that a telephone

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conference would expedite the resolution of this case, the Examiner is respectfully requested to contact the undersigned.

In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the prior art that have yet to be raised but which may be raised in the future.

Respectfully submitted,



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